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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of C. BANTA, et al.	)	Examiner: D. COBANOGLU
Serial No.: 09/876,782	)	Art Unit: 3626
Filed: June 7, 2001	)	Confirmation: 8851
For: **METHOD AND COMPUTER READABLE MEDIUM FOR MERGING STUDIES**	)	
Date of Final Rejection: May 11, 2010	)	
Attorney Docket No.: PHUS010388US / PKRX 200118US01	)	Cleveland, OH 44114 October 4, 2010

APPEAL BRIEF

Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is an Appeal from the Final Rejection of May 11, 2010.

The Notice of Appeal with the requisite fee was filed August 11, 2010.

Authorization to charge the applicant's Deposit Account with the 37 CFR 41.20(b)(2) fee accompanies this Brief.

CERTIFICATE OF ELECTRONIC TRANSMISSION

I certify that this **APPEAL BRIEF** and accompanying documents in connection with U.S. Serial No. 09/876,782 are being filed on the date indicated below by electronic transmission with the United States Patent and Trademark Office via the electronic filing system (EFS-Web).

Oct 4 2010
Date

Patricia A Heim
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(i) REAL PARTY IN INTEREST

The Real Party in Interest is the Assignee, KONINKLIJKE PHILIPS ELECTRONICS, N.V.

(ii) RELATED APPEALS AND INTERFERENCES

None.

(iii) STATUS OF CLAIMS

Claims 1-28 are pending

No claims have been cancelled.

Claims 1-28 stand rejected.

No claims stand allowed, confirmed, withdrawn, or objected to.

The rejection of claims 1-28 is being appealed.

(iv) STATUS OF AMENDMENTS

The proposed Amendment After Final of July 12, 2010 was not entered. The proposed Amendment sought to: (1) clarify claim 9, and (2) resolve the 35 U.S.C. § 101 issues. In the Advisory Action of August 5, 2010, the Examiner denied entry due to the clarifications of claim 9. The Advisory Action made no objections to the amendments to address the 35 U.S.C. § 101 issues.

A second After Final amendment accompanies this Appeal Brief ("Amendment Accompanying Appeal Brief"). This second After Final amendment addresses only the 35 U.S.C. § 101 issues and does not attempt to clarify claim 9. Accordingly, it is believed that this second After Final amendment accompanying the present Appeal Brief will be entered and that the 35 U.S.C. § 101 issues will be resolved prior to the Board's considering this Appeal Brief.

(v) SUMMARY OF CLAIMED SUBJECT MATTER

1. A computer-implemented medical information merging method, comprising ~{¶ **[0007]**}:

identifying a patient's first collection of medical information with a first collection identifier, and a logically related or similar second collection of medical information with a second collection identifier, the first collection identifier being different from the second collection identifier ~{¶ **[0008]**; ¶ **[0009]**; ¶ **[0013]**; ¶ **[0018]**; ¶ **[0048]**};

with a computer **{4}** merging the patient's first collection of medical information with the second collection of medical information, to create a composite collection of medical information ~{¶ **[0001]**; ¶ **[0007]**; ¶ **[0009]**; ¶ **[0011]**; ¶ **[0013]**; ¶ **[0022]**; ¶ **[0025]-[0029]**; ¶ **[0031]**; ¶ **[0039]-[0041]**; ¶ **[0043]**};

during the merging, with the computer reconciling the first and second collection identifiers of the first and second collections of medical information ~{¶ **[0001]**; ¶ **[0007]**; ¶ **[0009]**; ¶ **[0011]**; ¶ **[0013]**; ¶ **[0022]**; ¶ **[0025]-[0029]**; ¶ **[0031]**; ¶ **[0039]-[0041]**; ¶ **[0043]**};

during said merging, with the computer **{4}** automatically adding medical information, according to a protocol attribute, of the first or second collection of medical information into the other of the first or second collection of medical information in the creating of said composite collection of medical information ~{¶ **[0010]**; ¶ **[0012]**; ¶ **[0032]-[0039]**};; and

at least one of displaying the composite collection of medical information on a display **{8, 10, 14}** or storing the merged collection of medical information in a non-transitory computer memory ~{¶ **[0021]**}.

2. The medical information merging method of claim 1, wherein the medical information is at least one of medical images, patient measurements, findings, comments, waveforms, Doppler audio, and a medical study report ~{¶ **[0020]**; ¶ **[0048]**}.

3. The medical information merging method of claim 2, further comprising computing patient measurement information of the first collection of medical information, based on the patient measurements in the second collection of medical information, upon said merging ~{¶ **[0031]; ¶ [0034]-[0039]**}.

4. The medical information merging method of claim 1, wherein said adding comprises adding stage information of the second collection of medical information to the first collection of medical information according to a protocol attribute of the second collection of medical information ~{¶ **[0031]-[0033]; ¶ [0039]**}.

5. The medical information merging method of claim 1, wherein the first and second collections of medical information include unique identifiers according to a lexicon of Digital Imaging and Communication in Medicine (DICOM) ~{¶ **[0002]; ¶ [0004]; ¶ [00040]**}.

6. The medical information merging method of claim 1, wherein said adding comprises adding a series instance identifier, for a series of the second collection of medical information, to the first collection of medical information without generating a new series instance identifier in the first collection of medical information for said series of the second collection of medical information ~{¶ **[0020]-[0022]; ¶ [0027]**}.

7. The medical information merging method of claim 1, wherein said adding comprises adding new medical information of the second collection of medical information to the composite collection of medical information based on the new medical information including a collection identifier of the second collection of medical information ~{¶ **[0013]; ¶ [0043]**}.

8. The medical information merging method of claim 1, further comprising identifying the first and second collections of medical information, wherein said merging is initiated from a terminal **{8, 10, 14}** remote from a storage unit containing either of the first and second collections of medical information ~{¶ **[0047]**}.

9. A computer-implemented study merging method, comprising:

identifying a patient's first medical study, which first medical study includes a first study identifier, and a logically related or similar second medical study, which second medical study includes a second study identifier ~{¶ **[0009]-[0012]; ¶ [0028]**};

in response to a user request, with a computer **{4}** merging the patient's first medical study with the second medical study to create a merged study, such that medically context-specific information stored in at least one of the first and second medical studies is merged based upon a protocol of at least one of the first and second studies, the protocol being indicated by an attribute of at least one of the first and second studies ~{¶ **[0010]; ¶ [0012]; ¶ [0031]; ¶ [0032]; ¶ [0039]**};

with the computer **{4}** saving respective identifiers of the first and second studies ~{¶ **[20]**};

with the computer **{4}** deleting a distinct database identity for at least one of the first and second studies ~{¶ **[0008]; ¶ [0041]**};

with the computer **{4}** assigning a unique study identifier to the merged study ~{¶ **[0013]**}; and

at least one of displaying the merged study on a terminal **{8, 10, 14}** and storing the merged study in a non-transitory computer storage medium ~{¶ **[0029]**}.

10. The study merging method of claim 9, wherein the medically context specific information is stage information ~{¶ **[0031]-[0033]; ¶ [0039]**}.

11. The study merging method of claim 9, wherein the medically context specific information is measurement information ~{¶ **[0031]; ¶ [0034]-[0039]**}.

12. A computer program product comprising a non-transitory computer readable medium in which is embodied a program having instructions executable by a computer **{4}** to perform acts, said acts comprising:

identifying a patient's first collection of medical information with a first collection identifier, and a logically related or similar second collection of medical information with a second collection identifier ~{¶ **[0009]-[0012]; ¶ [0028]**};

merging the patient's first collection of medical information with the second collection of medical information, to create a composite collection of medical information ~{¶ **[0001]; ¶ [0007]; ¶ [0009]; ¶ [0011]; ¶ [0013]; ¶ [0022]; ¶ [0025]-[0029]; ¶ [0031]; ¶ [0039]-[0041]; ¶ [0043]**};

wherein said merging includes reconciling the first and second collection identifiers of the first and second collections of medical information ~{¶ **[0008]; ¶ [0041]**}; and

wherein said merging includes automatically according to a protocol attribute, adding medical information, of the first or second collection of medical information into the other collection of medical information in the creating of said composite collection of medical information ~{¶ **[0010]-[0012]**}.

13. The computer program product of claim 12, wherein the medical information is at least one of medical images, patient measurements, findings, comments, waveforms, Doppler audio, and a medical study report ~{¶ **[0020]; ¶ [0048]**}.

14. The computer program product of claim 13, wherein said automatically adding comprises computing patient measurement information of the first collection of medical information, based on the patient measurements in the second collection of medical information, upon said merging ~{¶ **[0031]; ¶ [0034]-[0039]**}.

15. The computer program product of claim 12, wherein said automatically adding comprises adding stage information of the second collection of medical information to the first collection of medical information according to a protocol attribute of the second collection of medical information ~{¶ **[0031]-[0033]; ¶ [0039]**}.

16. The computer program product of claim 12, wherein the first and second collections of medical information include unique identifiers according to a lexicon of Digital Imaging and Communication in Medicine (DICOM) ~{¶ **[0002]; ¶ [0004]; ¶ [0040]**}.

17. The computer program product of claim 12, wherein said automatic adding comprises adding a series instance identifier, for a series of the second collection of medical information, to the first collection of medical information without generating a new series instance identifier in the first collection of medical information for said series of the second collection of medical information ~{¶ **[0020]-[0022]; ¶ [0027]**}.

18. The computer program product of claim 12, wherein said automatic adding comprises adding new medical information of the first or second collections of medical information to the composite collection of medical information based on the new medical information including a collection of medical information identifier of either of the first or second collections of medical information ~{¶ **[0013]; ¶ [0043]**}.

19. The computer program product of claim 18, wherein said acts further comprise controlling the computer **{4}** to notify a user when said adding of the new medical information is performed ~{¶ **[0043]**}.

20. The computer program product of claim 12, further comprising controlling the computer **{4}** to delete a distinct database identity of the second collection of medical information ~{¶ **[0008]; ¶ [0041]**}.

21. The computer program product of claim 12, wherein said acts further comprise controlling the computer **{4}** to identify the first and second collections of medical information, wherein said merging is initiated from a terminal **{8, 10, 14}** remote from a storage unit containing either of the first and second collections of medical information ~{¶ **[0047]**}.

22. A computer program product comprising a non-transitory computer readable medium in which is embodied a program having instructions executable by a computer **{4}** to perform acts, said acts comprising:

merging a patient's first medical study which includes a first study identifier with a logically related or similar second medical study which includes a second identifier to create a merged study, such that medically context-specific information stored in at least one of the first and second medical studies is merged based upon a protocol of at least one of the first and second studies, the protocol being indicated by an attribute of at least one of the first and second studies **~{¶ [0009]-[0012]; ¶ [0028]; ¶ [0031]; ¶ [0039]}**;

saving respective identifiers of the first and second studies **~{¶ [20]}**;

deleting at least one of the first and second study identifiers **~{¶ [0008]; ¶ [0041]}**; and assigning a unique study identifier to the merged study **~{¶ [0013]}**.

23. The computer program product of claim 22, wherein the medically context-specific information is stage information **~{¶ [0031]-[0033]; ¶ [0039]}**.

24. The computer program product of claim 22, wherein the medically context-specific information is measurement information **~{¶ [0031]; ¶ [0034]-[0039]}**.

25. A computer-implemented medical study merging method, comprising:

identifying, in accordance with a lexicon of Digital Imaging and Communication in Medicine (DICOM), a patient's related first and second medical studies to be merged, the first medical study having a first identifier and the second medical study having a second identifier different from the first medical study identifier **~{¶ [0002]; ¶ [0004]; ¶ [0040]}**;

with one or more processors, merging the first medical study with the second medical study, according to a protocol attribute, to create a resultant composite study having a study identifier different from at least one of the first and second identifiers of the first and second medical studies, wherein, in accordance with said lexicon, the merging includes an automatic, processor-implemented adding of a series of the second medical study to the composite study, the series of the second medical study having a series identifier identical to a pre-merge corresponding series identifier, with the series of the second medical study including at least an artifact with an artifact identifier identical to a pre-merge corresponding artifact identifier, such that the composite study includes series and corresponding series identifiers from both the premerged first and second medical studies ~{¶ **[0009]-[0012]**}; and

at least one of generating a human viewable display **{8, 10, 14}** on a display **{8, 10, 14}** device of the composite study and storing the composite study in a non-transitory computer storage device ~{¶ **[0045]-[0046]**}.

26. The medical study merging method of claim 25, wherein the composite study is assigned a unique study identifier of the first medical study ~{¶ **[0010]**; ¶ **[0011]**; ¶ **[0013]**}.

27. The medical information merging method of claim 1, wherein the study identifiers of the first and second medical studies are unique among studies in a database having the distinct database entity ~{¶ **[0008]**}.

28. The computer program product of claim 12, wherein the study identifiers of the first and second medical studies are unique among studies in a database having the distinct database entity ~{¶ **[0008]**}.

(vi) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1-28 are anticipated in the sense of 35 U.S.C. § 102 over Cooke (US 6,574,629).

If the Second Amendment After Final which accompanies this Appeal Brief is not entered, then the second issue to be considered on Appeal is whether claims 1-11 and 25-27 are statutory subject matter within the scope of 35 U.S.C. § 101.

(vii) ARGUMENT

A. Claim 1 & Claims 2-8 and 27 Dependent Therefrom Are Not Anticipated by Cooke

Claim 1 calls for a computer-implemented medical information merging method. By distinction, Cooke is directed to a network gateway which provides a PACs administrator with the ability to ***manually*** control deleting, splitting, and merging of studies. See Cooke, column 8, lines 54-55.

Claim 1 calls for identifying a patient's first collection of medical information with a first collection identifier and a logically related or similar second collection of medical information with a second collection identifier, the first and second collection identifiers being different. Column 8, lines 38-46 of Cooke referenced by the Examiner do not address collection identifiers. Column 11, lines 41-54 of Cooke describes a workstation on which a user can enter queries to locate a study or group of studies based on input criteria, such as an accession number which is a unique identifier for each study. That is, Cooke calls for identifying one identifier, but does not describe identifying a logically related or similar collection of medical information with a second identifier.

Claim 1 calls for reconciling the first and second identifiers during the merging. As above, column 8, lines 38-46 of Cooke referenced by the Examiner do not address identifiers. Column 11, lines 41-54 referenced by the Examiner do not discuss reconciling accession numbers or other identifiers. Column 21, lines 24-33 of Cooke referenced by the Examiner do not address reconciling identification numbers. Rather than reconciling identifiers, column 21, lines 24 and 25 suggests that the two or more studies can have matching accession numbers. When a doctor prescribes a study which has tests from several different parts of the hospital or even out of hospital clinics or laboratories, such as blood work, radiography, and the like, these studies should all come back with the same accession number. Thus, there is no second accession number to reconcile.

Column 21, lines 26-28 of Cooke indicate that the "merge" is actually placing the two studies in a common folder. This study is then routed "as if it were a single study". It is submitted that not only does Cooke not disclose reconciliation of

identifiers, Cooke teaches to the contrary by suggesting that the two or more studies should merely be placed in a common folder.

Claim 1 further calls for, during the merging, automatically adding medical information according to a protocol attribute of the first or second collection of medical information in order to create the composite collection. Column 8, lines 47-60 and column 11, lines 41-54 of Cooke referenced by the Examiner indicate that studies can be "merged". These sections do not describe what merging entails, much less that it should entail automatically adding medical information from one study to the other, much less that this adding of medical information should be done according to a protocol attribute. Column 21, lines 24-33 of Cooke disclose that "merge" means putting two studies into a common folder. Putting two studies into a common folder is not adding medical information from one study to the other study. Rather, it is something completely different. That is, putting two studies into a common folder merely assures that they travel together such that a viewer has both sets of information available. It does not mean or suggest the transfer of medical information between studies. Accordingly, it is submitted that column 21, lines 24-33 teach against adding medical information from one study to another during a merge.

Accordingly, it is submitted that **claim 1 and claims 2-8 and 27 dependent therefrom** are not anticipated by Cooke.

B. Claim 3 is Not Anticipated by Cooke

Claim 3 calls for computing patient measurement information of the first collection based on patient measurements in the second collection upon the merging. Column 10, line 54 – column 11, line 3 of Cooke referenced by the Examiner describes the organization of the storage database and the database server. The database/database server as described in this section of Cooke only performs the function of storing. There is no suggestion of computing patient information in one study based on a second study. Again, as discussed above, column 21, lines 24-33 of Cooke clearly disclose that two studies are merely placed in a common folder with no suggestion, teaching, or disclosure of moving any medical information between studies, much less computing patient measurement information in one study based on patient measurements in another study.

Accordingly, it is submitted that **claim 3** is not anticipated by Cooke.

C. Claim 4 is Not Anticipated by Cooke

Claim 4 calls for adding stage information from the second collection to the first collection according to an attribute of the second collection.

Column 11, lines 41-54 of Cooke do not describe what happens during a merge, much less that information from one study be added to another. Column 26, lines 50-60 of Cooke referenced by the Examiner describe moving or copying studies from the jukebox MODs to the archives. Moving one or more studies from one memory to another does not disclose or fairly suggest adding information from one study to another study, much less that one should add stage information from a second study to a first study, much less that this adding should be done based on a protocol attributable to the second study.

Accordingly, it is submitted that **claim 4** is not anticipated by Cooke.

D. Claim 6 is Not Anticipated by Cooke

Claim 6 calls for adding a series instance identifier from the second collection to the first collection without generating a new series instance identifier in the first collection. Column 8, lines 38-46 of Cooke as discussed above do not define what happens during a "merge". Column 11, line 55 – column 12, line 6 referenced by the Examiner address the viewing stations, not a merging process. This section merely describes functions that are available to make it easier for a user to view one or more studies. This section of Cooke makes no suggestion of adding information from one series to another, much less of adding a series instance identifier from one series to the other, much less that the moving of the series instance identifier from one study to another, all done without generating a new series instance identifier.

Accordingly, it is submitted that **claim 6** is not anticipated by Cooke.

E. Claim 7 is Not Anticipated by Cooke

Claim 7 calls for adding new medical information of the second collection of medical information to the composite collection based on the new

medical information including a collection identifier of the second collection of medical information. Column 8, lines 38-46 of Cooke use the word "merge", but do not describe what it means. Column 11, line 55 – column 12, line 6 of Cooke referenced by the Examiner describes viewing options for the material already in a study. There is no suggestion in this section of Cooke of adding new medical information to one of the studies of Cooke which are stored in a common folder.

Accordingly, it is submitted that **claim 7** is not anticipated by Cooke.

F. Claim 9 & Claims 10 & 11 Dependent Therefrom Are Not Anticipated by Cooke

Claim 9 calls for a computer-implemented study merging method. Column 8, lines 54-55 of Cooke call for a manual merging.

Claim 9 calls for merging two patient studies to create a merged study such that medical information stored in one of the studies is merged based on a protocol of at least one of the studies, which protocol is indicated by an attribute of one of the studies. Cooke, column 11, line 41 – column 12, line 6 referenced by the Examiner relates to viewing options and customizing the tool bar, but do not relate to merging studies. Column 21, lines 24-33 of Cooke disclose placing two studies in a common folder. Although this folder is treated "as if it were" a common study, this section of Cooke makes it clear that the two studies continue to be two studies. It is submitted that two studies located in a common folder is not a merged study.

Claim 9 calls for deleting the study identifier for at least one of the first and second studies. Column 21, lines 24-33 of Cooke disclose moving the two studies into a common folder, but make no suggestion of deleting any accession numbers. Column 9, lines 22-44 referenced by the Examiner describe moving studies from short term storage in the MODs to archive and deleting from the short term storage folders that have been moved to archive. There is no disclosure or suggestion of deleting one of the study identifiers of the two studies merged into a merged study.

Accordingly, it is submitted that claim 9 and claims 10 and 11 dependent therefrom are not anticipated by Cooke.

G. Claim 12 & Claims 13-21 & 28 Dependent Therefrom Are Not Anticipated by Cooke

Claim 12 calls for the steps which are executable by a computer to include identifying a patient's first collection of medical information with a first collection identifier and a logically related or similar second collection of medical information with a second collection identifier. By contrast, column 8, lines 54-55 of Cooke state that the merging is manual. Column 11, lines 41-54 of Cooke referenced by the Examiner and the lines preceding and following relate to displaying studies to a manual user. Column 21, lines 24-33 of Cooke and Figure 12 describe the display screen which is displayed to the manual user and which includes a "merge" button **129** which the user manually clicks. This makes it clear that the computer does not identify related studies. Rather, this process must be performed by a human being.

Claim 12 calls for reconciling the first and second identifiers during the merging. As above, column 8, lines 38-46 of Cooke referenced by the Examiner do not address identifiers. Column 11, lines 41-54 referenced by the Examiner do not discuss reconciling accession numbers or other identifiers. Column 21, lines 24-33 of Cooke referenced by the Examiner do not address reconciling identification numbers. Rather than reconciling identifiers, column 21, lines 24 and 25 suggests that the two or more studies can have matching accession numbers. When a doctor prescribes a study which has tests from several different parts of the hospital or even out of hospital clinics or laboratories, such as blood work, radiography, and the like, these studies should all come back with the same accession number. Thus, there is no second accession number to reconcile.

Column 21, lines 26-28 of Cooke indicate that the "merge" is actually placing the two studies in a common folder. This study is then routed "as if it were a single study". It is submitted that not only does Cooke not disclose reconciliation of identifiers, Cooke teaches to the contrary by suggesting that the two or more studies should merely be placed in a common folder.

Claim 12 further calls for, during the merging, automatically adding medical information according to a protocol attribute of the first or second collection of medical information into the other to create the composite collection. Column 8, lines 47-60 and column 11, lines 41-54 of Cooke referenced by the Examiner indicate

that studies can be "merged". These sections do not describe what merging entails, much less that it should entail automatically adding medical information from one study to the other, much less that this adding of medical information should be done according to a protocol attribute. Column 21, lines 24-33 of Cooke disclose that "merge" means putting two studies into a common folder. Putting two studies into a common folder is not adding medical information from one study to the other study. Rather, it is something completely different. That is, putting two studies into a common folder merely assures that they travel together such that a viewer has both sets of information available. It does not mean or suggest the transfer of medical information between studies. Accordingly, it is submitted that column 21, lines 24-33 teach against adding medical information from one study to another during a merge.

Accordingly, it is submitted that **claim 12 and claims 13-21 and 28 dependent therefrom** are not anticipated by Cooke.

H. Claim 14 is Not Anticipated by Cooke

Claim 14 calls for computing patient measurement information of the first collection based on patient measurements in the second collection upon the merging. Column 10, line 54 – column 11, line 3 of Cooke referenced by the Examiner describes the organization of the storage database and the database server. The database/database server as described in this section of Cooke only performs the function of storing. There is no suggestion of computing patient information in one study based on a second study. Again, as discussed above, column 21, lines 24-33 of Cooke clearly disclose that two studies are merely placed in a common folder with no suggestion, teaching, or disclosure of moving any medical information between studies, much less computing patient measurement information in one study based on patient measurements in another study.

Accordingly, it is submitted that **claim 14** is not anticipated by Cooke.

I. Claim 15 is Not Anticipated by Cooke

Claim 15 calls for adding stage information from the second collection to the first collection according to an attribute of the second collection.

Column 11, lines 41-54 of Cooke do not describe what happens during a merge, much less that information from one study be automatically added to another. Column 26, lines 50-60 of Cooke referenced by the Examiner describe moving or copying studies from the jukebox MODs to the archives. Moving one or more studies from one memory to another does not disclose or fairly suggest adding information from one study to another study, much less that one should add stage information from a second study to a first study, much less that this adding should be done based on a protocol attributable to the second study.

Accordingly, it is submitted that **claim 15** is not anticipated by Cooke.

J. Claim 17 is Not Anticipated by Cooke

Claim 17 calls for automatically adding a series instance identifier from the second collection to the first collection without generating a new series instance identifier in the first collection. Column 8, lines 38-46 of Cooke as discussed above do not define what happens during a "merge". Column 11, line 55 – column 12, line 6 referenced by the Examiner address the viewing stations, not a merging process. This section merely describes functions that are available to make it easier for a user to view one or more studies. This section of Cooke makes no suggestion of adding information from one series to another automatically, much less of adding a series instance identifier from one series to the other, much less that the moving of the series instance identifier from one study to another should be done without generating a new series instance identifier.

Accordingly, it is submitted that **claim 17** is not anticipated by Cooke.

K. Claim 18 is Not Anticipated by Cooke

Claim 18 calls for adding new medical information to the first or second collection of medical information to the composite collection based on the new medical information including a collection identifier of the first or second collection of medical information. Column 8, lines 38-46 of Cooke use the word "merge", but do not describe what it means. Column 11, line 55 – column 12, line 6 of Cooke referenced by the Examiner describes viewing options for the material already in a study. There is no suggestion in this section of Cooke of adding new

medical information to one of the studies of Cooke which are stored in a common folder.

Accordingly, it is submitted that **claim 18** is not anticipated by Cooke.

L. Claim 19 is Not Anticipated by Cooke

Claim 19 calls for controlling the computer to notify the user when the adding of new medical information is performed.

Column 11, lines 41-54 of Cooke describe a manual process in which a human user performs function by operating buttons. There is no suggestion of notifying a user when the computer has performed an act such as adding new information. Table 6 referenced by the Examiner is a series of status indicators for the folders. Such status indicators can be viewed by the human user when opening the folder to review it. However, there is no suggestion that any of these status indicators would notify the user when the computer adds information.

Accordingly, it is submitted that **claim 19** is not anticipated by Cooke.

M. Claim 20 is Not Anticipated by Cooke

Claim 20 calls for the computer to delete the identifier from one of the merged collections of medical information. Column 21, lines 24-33 of Cooke disclose that two studies are moved into a common folder, but there is no suggestion that the accession number of either be deleted. Column 9, lines 22-42 of Cooke referenced by the Examiner do not relate to the deletion of the identifier of any of the studies in a folder. Rather, this section of Cooke discusses deleting folders or studies after they have been moved from short term storage to the archives.

Accordingly, it is submitted that **claim 20** distinguishes patentably and unobviously over the references of record.

N. Claim 22 & Claims 23-24 Dependent Therefrom Are Not Anticipated by Cooke

Claim 22 calls for the computer to perform the acts of merging a first study with a second study, the first and second studies having first and second identifiers. In the merge, the medically context-specific information stored in one of

the studies is merged with the other based on a protocol indicated by an attribute of at least one of the two studies. At column 11, lines 41-54 of Cooke, an operator selects two studies and places them in a folder. There is no suggestion that such a "merge" be based on a protocol indicated by an attribute of at least one of the two studies. Rather, it is submitted that the user is free to select any two or more studies to be placed in the folder. There is no suggestion of any protocol indicated by an attribute of at least one of the studies which forms the basis for the "merge".

Moreover, claim 22 calls for deleting at least one of the two study identifiers and assigning a unique study identifier to the merged study. Column 11, lines 41-44 of Cooke makes no suggestion that the identifiers of any of the studies placed in a common folder should be deleted. Rather, this section of Cooke appears to suggest that the identities of the individual studies placed in a common folder are retained.

Accordingly, it is submitted that **claim 22 and claims 23-24 dependent therefrom** are not anticipated by Cooke.

O. Claim 23 is Not Anticipated by Cooke

Claim 23 calls for the medically context-specific information to be stage information. Column 11, lines 41-54 of Cooke referenced by the Examiner does not discuss stage information. Rather, this section of Cooke suggests the operator performs the search based on some criteria such as accession number and generating a list. The user then selects items from the list and moves them into a folder. There is no indication that any medically context-specific information that is placed in the folder is stage information.

Accordingly, it is submitted that **claim 23** is not anticipated by Cooke.

P. Claim 25 & Claim 26 Dependent Therefrom Are Not Anticipated by Cooke

Claim 25 calls for merging a first medical study having a first identifier with a second medical study having a second identifier according to a protocol attribute. The merging includes an automatic adding of a series of the second medical study to the composite study, which series of the second medical

study has a series identifier identical to a pre-merge series identifier. In addition to the study identifier and the series identifier, claim 25 further calls for the second study to include an artifact identifier. Column 8, lines 38-46, referenced by the Examiner, do not mention identifiers of any type. Column 11, line 41 – column 12, line 6 of Cooke only disclose a single type of identifier, the accession number, which is an identifier for studies. There is no disclosure or suggestion of either series identifiers or artifact identifiers, much less how such series identifiers and artifact identifiers should be handled during a merge. Column 29, lines 4-56 of Cooke discusses how a user interacts with the display on the screen, particularly when using a two-screen display. This section is silent as to identifiers. That is, this section mentions no identifiers, much less three different identifiers, much less that one of the studies should have a study identifier, a series identifier, and an artifact identifier. Moreover, none of the sections referenced by the Examiner provide any suggestion regarding how one would handle series and artifact identifiers, if there were any, during a merge.

Accordingly, it is submitted that **claim 25 and claim 26 dependent therefrom** are not anticipated by Cooke.

Q. The Claims Comply With the Requirements of 35 U.S.C. § 101

First, it is submitted that the Amendment accompanying this Brief resolves the 35 U.S.C. § 101 issues.

Second, even if the accompanying Amendment is not entered, it is submitted that the claims comply fully with the requirements of 35 U.S.C. § 101.

Claim 1 is directed to a "computer-implemented" medical information merging system. It is submitted that this ties the first four steps to a computer. The displaying step calls for displaying information on a display. Thus, claim 1 ties the claimed method to a computer and a display.

Moreover, claim 1 includes a transformative step which transforms the medical information in the computer to a display, i.e., from computer data to a human-readable form.

Moreover, as set forth in *Bilski v. Kappos* 561 US _____ (2010) (No. 08-964, 545 F.3d 943,) the Supreme Court clarified that the method tied to a

particular machine or apparatus standard applied by the Examiner has been clarified to show that this standard is not the exclusive standard. Rather, the key is to determine whether the claim sets forth an abstract idea. Claim 1 sets forth a clear series of steps claimed with specificity which are implemented in a computer-implemented method, i.e., by computer, which results in a clear and tangible result of displaying information on a display.

Accordingly, it is submitted that **claim 1** and **claims 2-8 and 27 dependent therefrom** comply with the requirements of 35 U.S.C. § 101.

Claim 9 is also directed to a computer-implemented method which includes a series of steps which are set forth with specificity culminating in displaying a study on a terminal or storing the study in a computer storage medium.

Accordingly, it is submitted that **claim 9 and claims 10 and 11 dependent therefrom** are not directed to a mere abstract idea and comply with the requirements of 35 U.S.C. § 101.

Claim 25 is directed to a computer-implemented method which includes steps implemented by a computer, culminating in the generation of a human-viewable display or storing in a computer storage. Again, it is submitted that claim 25 is directed to a concrete method performed with claimed apparatus rather than an abstract idea.

Accordingly, it is submitted that **claim 25 and claim 26 dependent therefrom** comply with the requirements of 35 U.S.C. § 101.

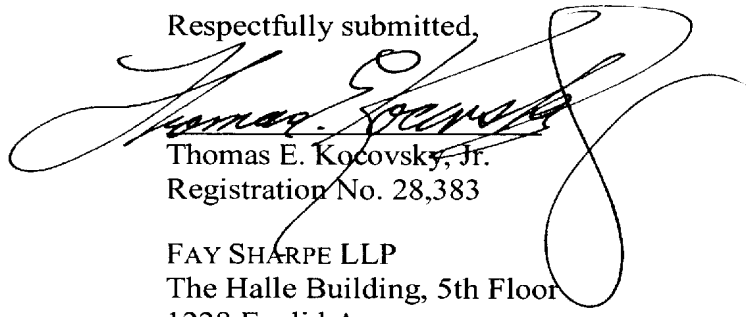
The applicant would be pleased to work with the Examiner to develop language for the claims which are phrased such that they comply with the requirements of 35 U.S.C. § 101 as interpreted by the Patent Office and the Examiner to be filed in a subsequent Amendment to remove the 35 U.S.C. § 101 issue from this Appeal or subsequent to a decision on the merits of the claims relative to the prior art at such time as the patentability of the claims relative to the prior art has been decided.

Hopefully, the Examiner will enter the Amendment accompanying this Appeal Brief and agree that the amendments contained therein resolve the 35 U.S.C. § 101 issues.

R. Conclusion

For the reasons set forth above, it is submitted that claims 1-28 are not anticipated by Cooke and that claims 1-11 and 25-27 comply with the requirements of 35 U.S.C. § 101. An early reversal of all of the Examiner's rejections is requested.

Respectfully submitted,



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(viii) CLAIMS APPENDIX (with the Amendment Accompanying the Appeal Brief Entered)

1. (Rejected) A computer-implemented medical information merging method, comprising:

identifying a patient's first collection of medical information with a first collection identifier, and a logically related or similar second collection of medical information with a second collection identifier, the first collection identifier being different from the second collection identifier;

with a computer merging the patient's first collection of medical information with the second collection of medical information, to create a composite collection of medical information;

during the merging, with the computer reconciling the first and second collection identifiers of the first and second collections of medical information;

during said merging, with the computer automatically adding medical information, according to a protocol attribute, of the first or second collection of medical information into the other of the first or second collection of medical information in the creating of said composite collection of medical information; and

at least one of displaying the composite collection of medical information on a display or storing the merged collection of medical information in a non-transitory computer memory.

2. (Rejected) The medical information merging method of claim 1, wherein the medical information is at least one of medical images, patient measurements, findings, comments, waveforms, Doppler audio, and a medical study report.

3. (Rejected) The medical information merging method of claim 2, further comprising computing patient measurement information of the first collection of medical information, based on the patient measurements in the second collection of medical information, upon said merging.

4. (Rejected) The medical information merging method of claim 1, wherein said adding comprises adding stage information of the second collection of medical information to the first collection of medical information according to a protocol attribute of the second collection of medical information.

5. (Rejected) The medical information merging method of claim 1, wherein the first and second collections of medical information include unique identifiers according to a lexicon of Digital Imaging and Communication in Medicine (DICOM).

6. (Rejected) The medical information merging method of claim 1, wherein said adding comprises adding a series instance identifier, for a series of the second collection of medical information, to the first collection of medical information without generating a new series instance identifier in the first collection of medical information for said series of the second collection of medical information.

7. (Rejected) The medical information merging method of claim 1, wherein said adding comprises adding new medical information of the second collection of medical information to the composite collection of medical information based on the new medical information including a collection identifier of the second collection of medical information.

8. (Rejected) The medical information merging method of claim 1, further comprising identifying the first and second collections of medical information, wherein said merging is initiated from a terminal remote from a storage unit containing either of the first and second collections of medical information.

9. (Rejected) A computer-implemented study merging method, comprising:

identifying a patient's first medical study, which first medical study includes a first study identifier, and a logically related or similar second medical study, which second medical study includes a second study identifier;

in response to a user request, with a computer merging the patient's first medical study with the second medical study to create a merged study, such that medically context-specific information stored in at least one of the first and second medical studies is merged based upon a protocol of at least one of the first and second studies, the protocol being indicated by an attribute of at least one of the first and second studies;

with the computer saving respective identifiers of the first and second studies;

with the computer deleting a distinct database identity for at least one of the first and second studies;

with the computer assigning a unique study identifier to the merged study; and

at least one of displaying the merged study on a terminal and storing the merged study in a non-transitory computer storage medium.

10. (Rejected) The study merging method of claim 9, wherein the medically context specific information is stage information.

11. (Rejected) The study merging method of claim 9, wherein the medically context specific information is measurement information.

12. (Rejected) A computer program product comprising a non-transitory computer readable medium in which is embodied a program having instructions executable by a computer to perform acts, said acts comprising:

identifying a patient's first collection of medical information with a first collection identifier, and a logically related or similar second collection of medical information with a second collection identifier;

merging the patient's first collection of medical information with the second collection of medical information, to create a composite collection of medical information;

wherein said merging includes reconciling the first and second collection identifiers of the first and second collections of medical information; and

wherein said merging includes automatically according to a protocol attribute, adding medical information, of the first or second collection of medical information into the other collection of medical information in the creating of said composite collection of medical information.

13. (Rejected) The computer program product of claim 12, wherein the medical information is at least one of medical images, patient measurements, findings, comments, waveforms, Doppler audio, and a medical study report.

14. (Rejected) The computer program product of claim 13, wherein said automatically adding comprises computing patient measurement information of the first collection of medical information, based on the patient measurements in the second collection of medical information, upon said merging.

15. (Rejected) The computer program product of claim 12, wherein said automatically adding comprises adding stage information of the second collection of medical information to the first collection of medical information according to a protocol attribute of the second collection of medical information.

16. (Rejected) The computer program product of claim 12, wherein the first and second collections of medical information include unique identifiers according to a lexicon of Digital Imaging and Communication in Medicine (DICOM).

17. (Rejected) The computer program product of claim 12, wherein said automatic adding comprises adding a series instance identifier, for a series of the second collection of medical information, to the first collection of medical information without generating a new series instance identifier in the first collection of medical information for said series of the second collection of medical information.

18. (Rejected) The computer program product of claim 12, wherein said automatic adding comprises adding new medical information of the first or second collections of medical information to the composite collection of medical information based on the new medical information including a collection of medical information identifier of either of the first or second collections of medical information.

19. (Rejected) The computer program product of claim 18, wherein said acts further comprise controlling the computer to notify a user when said adding of the new medical information is performed.

20. (Rejected) The computer program product of claim 12, further comprising controlling the computer to delete a distinct database identity of the second collection of medical information.

21. (Rejected) The computer program product of claim 12, wherein said acts further comprise controlling the computer to identify the first and second collections of medical information, wherein said merging is initiated from a terminal remote from a storage unit containing either of the first and second collections of medical information.

22. (Rejected) A computer program product comprising a non-transitory computer readable medium in which is embodied a program having instructions executable by a computer to perform acts, said acts comprising:

merging a patient's first medical study which includes a first study identifier with a logically related or similar second medical study which includes a second identifier to create a merged study, such that medically context-specific information stored in at least one of the first and second medical studies is merged based upon a protocol of at least one of the first and second studies, the protocol being indicated by an attribute of at least one of the first and second studies;

saving respective identifiers of the first and second studies;

deleting at least one of the first and second study identifiers; and assigning a unique study identifier to the merged study.

23. (Rejected) The computer program product of claim 22, wherein the medically context-specific information is stage information.

24. (Rejected) The computer program product of claim 22, wherein the medically context-specific information is measurement information.

25. (Rejected) A computer-implemented medical study merging method, comprising:

identifying, in accordance with a lexicon of Digital Imaging and Communication in Medicine (DICOM), a patient's related first and second medical studies to be merged, the first medical study having a first identifier and the second medical study having a second identifier different from the first medical study identifier;

with one or more processors, merging the first medical study with the second medical study, according to a protocol attribute, to create a resultant composite study having a study identifier different from at least one of the first and second identifiers of the first and second medical studies, wherein, in accordance with said lexicon, the merging includes an automatic, processor-implemented adding of a series of the second medical study to the composite study, the series of the second medical study having a series identifier identical to a pre-merge corresponding series identifier, with the series of the second medical study including at least an artifact with an artifact identifier identical to a pre-merge corresponding artifact identifier, such that the composite study includes series and corresponding series identifiers from both the premerged first and second medical studies; and

at least one of generating a human viewable display on a display device of the composite study and storing the composite study in a non-transitory computer storage device.

26. (Rejected) The medical study merging method of claim 25, wherein the composite study is assigned a unique study identifier of the first medical study.

27. (Rejected) The medical information merging method of claim 1, wherein the study identifiers of the first and second medical studies are unique among studies in a database having the distinct database entity.

28. (Rejected) The computer program product of claim 12, wherein the study identifiers of the first and second medical studies are unique among studies in a database having the distinct database entity.

(ix) EVIDENCE APPENDIX

Not applicable.

(x) RELATED PROCEEDINGS APPENDIX

None.